



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

SEP 19 2012

John Nelson, Environmental Program Manager
Massachusetts Water Resource Authority
100 First Avenue
Boston, Massachusetts 02129

Re: PCB Risk-Based Disposal Approval under 40 CFR §§ 761.61(c) and § 761.79(h)
Alewife Brook Pump Station
Somerville, Massachusetts

Dear Mr. Nelson:

This is in response to the Massachusetts Water Resource Authority (MWRA) Notification¹ for approval of a proposed PCB risk-based disposal plan at the Alewife Brook Pump Station (the Site) located at 392 Alewife Brook Parkway in Somerville, Massachusetts. The Site contains PCB-contaminated materials that exceed the allowable PCB levels under 40 CFR § 761.20(a) and § 761.62. Specifically, PCBs at greater than or equal to (\geq) 50 parts per million (ppm) have been found in paint at the Site.

In its Notification, MWRA is proposing the following PCB abatement activities:

- Remove all \geq 50 ppm PCB paint and dispose of as *PCB bulk product waste* in accordance with § 761.62;
- Remove PCB-contaminated *porous surfaces* with \geq 50 ppm (e.g., concrete, painted wooden work bench, etc) and dispose of as *PCB remediation waste* in accordance with § 761.61(a)(5)(i)(B)(2)(iii);
- Encapsulate approximately 1,430 square feet of less than ($<$) 50 ppm PCB painted *porous surfaces* (i.e., *PCB remediation waste*) with paint or equivalent product/barrier;

¹ Information was submitted by MWRA to satisfy the notification requirement under 40 CFR §§761.61(a)(3) and (c) and § 761.79(h). Information was provided dated July 2012 (PCB Abatement Plan); August 2012 (PCB Abatement Plan, revised); August 13, 2012 (email response to EPA comments); September 7, 2012 (email Response to EPA comments and September 2012 PCB Abatement Plan, revised); and September 14, 2012 (email September 2012 PCB Abatement Plan, revision 2). These submissions will be referred to as the "Notification".

- Remove and dispose of < 50 ppm PCB painted *non-porous surfaces* as a *PCB remediation waste*;
- Remove and dispose of ≥ 50 ppm PCB painted *non-porous surfaces* as a *PCB bulk product waste*, or decontaminate to achieve a less than or equal to (\leq) $10 \mu\text{g}/100 \text{ cm}^2$ PCB cleanup standard, or alternatively, encapsulate PCB-contaminated *non-porous surfaces* if the $\leq 10 \mu\text{g}/100 \text{ cm}^2$ PCB cleanup standard cannot be achieved; and,
- Encapsulate PCB-contaminated *porous surfaces* with greater than ($>$) 1 ppm but < 50 ppm PCBs with two (2) coats of a paint or equivalent product/barrier.

MWRA had determined that certain paints which have PCB concentrations at < 50 ppm, meet the criteria for an *Excluded PCB product* under § 761.3. Under the PCB regulations, *Excluded PCB products* are authorized for use. Given this use authorization, there is no requirement for removal of the < 50 ppm PCB products or for decontamination of surfaces that are in contact with these products.

With exception of the verification sampling frequency for certain *porous* and *non-porous surfaces*, the Notification meets the requirements and standards established under §§ 761.61, 761.62, and 761.79 for cleanup and disposal of *PCB remediation waste* and *PCB bulk product waste*. Given the proposed PCB abatement plan, the verification sampling frequency appears reasonable to support the project objectives. Further, EPA finds that the proposed encapsulation of PCB-contaminated *porous* and *non-porous surfaces* should effectively prevent direct exposure of these PCB-contaminated surfaces to building users, and that the encapsulation will not result in an unreasonable risk to public health or to the environment provided the coatings and/or other barriers are maintained. As such, EPA may approve the verification sampling and encapsulation under § 761.61(c).

MWRA may proceed with its cleanup in accordance with 40 CFR § 761.61(c); § 761.62; § 761.79(h); its Notification; and this Approval, subject to the conditions of Attachment 1. Under this Approval, EPA is reserving its rights to require additional investigation or mitigation measures should the results of the initial post-abatement sampling or the results of the long-term monitoring sampling indicate an unreasonable risk to Site users.

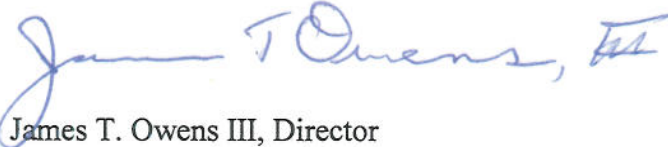
As PCB concentrations at > 1 ppm will remain at the Site following completion of the abatement work, MWRA will be required to record a notice on the deed and to develop a long term monitoring and maintenance plan for encapsulated surfaces and indoor air (Attachment 1, Conditions 16 and 17), as applicable.

Questions and correspondence regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

EPA shall not consider the work authorized under this Approval to be complete until it has received all required submittals. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,

A handwritten signature in blue ink, reading "James T. Owens, III". The signature is fluid and cursive, with the last name "Owens" being the most prominent part.

James T. Owens III, Director
Office of Site Remediation & Restoration

cc MassDEP - Boston
File

Attachment 1

ATTACHMENT 1:

**PCB RISK-BASED DISPOSAL APPROVAL CONDITIONS
ALEWIFE BROOK PUMP STATION
392 ALEWIFE BROOK PARKWAY / SOMERVILLE, MASSACHUSETTS**

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB bulk product waste* and the *PCB remediation waste* identified in the Notification.²
2. Massachusetts Water Resource Authority (MWRA) shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.
3. In the event that the risk-based disposal plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.
4. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.
5. MWRA must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, MWRA shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.
6. MWRA is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time MWRA has or receives information indicating that MWRA or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.
7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by MWRA are authorized to conduct the activities set forth in the Notification. MWRA is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.

² Information was submitted by MWRA to satisfy the notification requirement under 40 CFR §§761.61(a)(3) and (c) and § 761.79(h). Information was provided dated July 2012 (PCB Abatement Plan); August 2012 (PCB Abatement Plan, revised); August 13, 2012 (email response to EPA comments); September 7, 2012 (email Response to EPA comments and September 2012 PCB Abatement Plan, revised); and September 14, 2012 (email September 2012 PCB Abatement Plan, revision 2). These submissions will be referred to as the "Notification".

8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release MWRA from compliance with any applicable requirements of federal, state or local law; or 3) release MWRA from liability for, or otherwise resolve, any violations of federal, state or local law.
9. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirement in § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

10. This Approval may be revoked if the EPA does not receive written notification from MWRA of its acceptance of the conditions of this Approval within 10 business days of receipt.
11. MWRA shall notify EPA in writing of the scheduled date of commencement of on-site activities at least 1 business day prior to conducting any work under this Approval.
12. Prior to initiation of work authorized under this Approval, MWRA shall submit the following information for EPA review and/or approval:
 - a. a certification signed by its selected abatement contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval and in the contractor work plan provided in the Notification;
 - b. a contractor work plan, prepared and submitted by the selected abatement contractor(s) describing the means and methods of paint and concrete removal, and the containment and air monitoring that will be employed during abatement activities. This work plan should also include information on how and where wastes will be stored and disposed of, and on how field equipment will be decontaminated; and,
 - c. a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and quality assurance requirements specified in the Notification and in this Approval.

CLEANUP AND DISPOSAL CONDITIONS

13. To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools or construction of a negative air containment system with a HEPA ventilation system to control emissions, shall be utilized during removal processes. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.
14. PCB-contaminated *porous surfaces* (e.g., brick and concrete) shall be decontaminated and verification sampling and analysis shall be conducted as described below:
 - a. All visible residues of PCB paint (i.e. *PCB bulk product waste*) shall be removed from the surfaces as described in the Notification.
 - b. The cleanup standard for *porous surfaces* (e.g., concrete and brick) shall be less than or equal to (\leq) 1 part per million (ppm).
 - i) All post-cleanup verification sampling for *porous surfaces* shall be performed on a bulk basis (i.e., mg/kg) and reported on a dry weight analysis. Verification sampling for *porous surfaces* shall be conducted in accordance with the EPA Region 1 *Standard Operating Procedure For Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011*, at a maximum depth interval of 0.5 inches, and as detailed in the Notification.
 - ii) Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction/analytical method(s) is validated according to Subpart Q.
 - c. The cleanup standard for *non-porous surfaces* (e.g., metals) shall be less than or equal to (\leq) 10 $\mu\text{g}/100\text{ cm}^2$.
 - i) All post-cleanup verification sampling for *non-porous surfaces* shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e. $\mu\text{g}/100\text{ cm}^2$). Verification sampling for *non-porous surfaces* shall be conducted as detailed in the Notification
 - ii) Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction/analytical method(s) is validated according to Subpart Q.

- d. In the event **any porous surface** has a PCB concentration greater than ($>$) 1 ppm or **non-porous surface** has $> 10 \mu\text{g}/100 \text{ cm}^2$ following completion of the PCB removal activities, encapsulation of the *porous surfaces* and/or *non-porous surfaces* shall be implemented as described in the Notification.
 - i) Following encapsulation of the PCB-contaminated surfaces, post-encapsulation surface sampling and indoor air sampling shall be conducted to determine the effectiveness of the encapsulation.
 - (1) Indoor air sampling shall be conducted in accordance with EPA Method TO-10A or EPA Method TO-4A. Sufficient sample volumes shall be collected to provide a laboratory reporting limit of less than ($<$) $0.10 \mu\text{g}/\text{m}^3$. PCB analysis shall be conducted for PCB homologues and/or PCB congeners by EPA Method 680 or EPA Method 1668.
 - (2) Wipe sampling of encapsulated surfaces shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e. $\mu\text{g}/100 \text{ cm}^2$). Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846 and chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another method(s) is validated according to Subpart Q.
 - (3) In the event that PCB concentrations in the wipe samples are greater than ($>$) $1 \mu\text{g}/100 \text{ cm}^2$ and this standard cannot be achieved by application of additional coatings or encapsulant, or if air sample results are $> 0.10 \mu\text{g}/\text{m}^3$, MWRA shall contact EPA for further discussion and direction on additional measures, if any, that may be necessary at the Site.
 - ii) MWRA shall record a notice on the deed and submit a monitoring and maintenance implementation plan (MMIP) to monitor the long-term effectiveness of the encapsulants (see Conditions 16 and 17).
- 15. PCB waste (at any concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with 40 CFR § 761.40; stored in a manner consistent with 40 CFR § 761.65; and, disposed of in accordance with 40 CFR § 761.61 or § 761.62, unless otherwise specified below.
 - a. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g)(6).

- b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).
- c. PCB-contaminated water generated during decontamination shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60(a).

DEED RESTRICTION AND USE CONDITIONS

16. If PCB concentrations > 1 ppm in *porous surfaces* or > 10 µg/100 cm² on *non-porous surfaces* remain at the Site, MWRA shall record a notice on the deed to document this fact. Within thirty (30) days of completing the PCB abatement work described in the Notification and authorized in the Approval, MWRA shall submit for EPA review and approval, a draft deed restriction for the Site. The deed restriction shall include: a description of the extent and levels of contamination at the Site following abatement; a description of the actions taken at the Site; a description of the use restrictions for the Site, if applicable; and the long-term monitoring and maintenance requirements on the Site, which may be addressed by the long-term monitoring and maintenance implementation plan ("MMIP", see Condition 17). Within ten (10) business days of receipt of EPA's approval of the draft deed restriction, MWRA shall record the deed restriction. A copy of this Approval shall be attached to the deed restriction.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

17. Within thirty (30) days of completion of the PCB abatement work authorized under this Approval, MWRA shall submit for EPA's review and approval, a detailed MMIP for the surface encapsulants and for indoor air. MWRA shall incorporate any changes to the MMIP required by EPA.
- a. The MMIP shall include: a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols, sampling frequency, and analytical criteria; and reporting requirements.
 - b. The MMIP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users.
 - c. MWRA shall submit the results of these long-term monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the MMIP is necessary in order to monitor and/or evaluate the long-term effectiveness of the encapsulants.

- d. Activities required under the MMIP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.
18. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
19. Any modification(s) in the plan, specifications, or information submitted by MWRA, contained in the Notification, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. MWRA shall inform the EPA of any modification, in writing, at least ten (10) business days prior to such change. No action may be taken to implement any such modification unless the EPA has approved of the modification, in writing. The EPA may request additional information in order to determine whether to approve the modification. If such modification involves a change in the use of the Site which results in exposures not considered in the Notification, the EPA may revoke, suspend, and/or modify this Approval upon finding that this risk-based cleanup and disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from MWRA to make a determination regarding potential risk.
20. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
21. MWRA shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by MWRA to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

RECORDKEEPING AND REPORTING CONDITIONS

22. MWRA shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the cleanup and disposal and the analytical sampling shall be established and maintained by MWRA in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection to authorized representatives of EPA.

23. MWRA shall submit a final report to the EPA within 90 days of completion of the activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the project activities, including photo documentation; the characterization and verification sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of; copies of manifests and/or bills of lading; and copies of certificates of disposal or similar certifications issued by the disposer. The report shall also include a copy of the recorded deed restriction and a certification signed by an MWRA official verifying that the authorized activities have been implemented in accordance with this Approval and the Notification.
24. As required under Condition 17 of this Approval, MWRA shall submit the results of the long-term monitoring and maintenance activities to EPA as specified in the final MMIP to be approved by EPA.
25. Required submittals shall be mailed to:

Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100 – (OSRR07-2)
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527
26. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self-disclosure or penalty policies.

END OF ATTACHMENT 1